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The Coach's Impact on Long Distance Runners' Training and Competition Motivation

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ABSTRACT

An understanding of how an athlete's motivation is affected by coaching behaviours is vital information for a coach to acquire. This study examines the impact and need for a coach in optimising international athletes' training and competition motivation within the framework of Cognitive Evaluation Theory. The participants were six long distance runners with international experience. Qualitative data was collected using semi-structured interviews regarding the athletes' motivational experiences. Following inductive analysis, four general dimensions were established: athlete's uninfluenced training motivation; athlete's uninfluenced competition motivation; coaching behaviours impact on athlete's training motivation; and coaching behaviours impact on competition motivation. The findings revealed that coaching behaviours are typically consistent with the current motivational research [1-4] and the role of the coach is more important for an athlete's training motivation rather than competition motivation. Education of coaches in the correct use of motivational behaviours is therefore recommended, if athletes are to fulfill their abilities.

Key words: Coach Behaviour, Intrinsic Motivation, Long Distance Running, Self-Determination Theory

INTRODUCTION

Due to the loneliness often experienced during training for long distance running, an understanding of how coaching behaviours can impact an athlete's motivation is important for ensuring effective use of coach-athlete contact time. However, an athlete's motivational requirement alters dependent on the situation; in competitive contexts, for example, there is a change as the direct implications of participation become clear. The coach-athlete relationship is unique and the influence that a coach can have on an athlete's motivation has been researched through the impact of the coach's behaviours on the three innate psychological needs: competence, relatedness and autonomy, identified in Self-Determination Theory [5] and its sub-theory Cognitive Evaluation Theory [6]. Within the

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framework of Cognitive Evaluation Theory the findings of these studies [7-12] can be put into context, supporting the three innate psychological needs.

COGNITIVE EVALUATION THEORY

Defined as the partaking of an activity for the sense of satisfaction and pleasure elicited from engaging in the activity [13,14], intrinsic motivation has been offered as an important determinant of sport performance and sport persistence [1]. Designed as a method for analysing and understanding both the determinants and consequences associated with different forms of motivation, Vallerand [15] proposed a hierarchical model of motivation (HMM) based on Self-Determination Theory (SDT). It is conceived by the model that intrinsic motivation, extrinsic motivation and amotivation are three constructs that must be considered for motivational processes to undergo an absolute analysis [15,16]. The model makes it possible to connect social psychology and personality perspectives of intrinsic and extrinsic motivation, by providing a hierarchical conceptualisation and operative framework for understanding the core mechanisms that govern intrinsic and extrinsic motivation [15]. Considered to be a sub-theory of the much broader SDT [5], Cognitive Evaluation Theory (CET) [6] was developed to explain how intrinsic motivation can be affected by interpersonal strategies such as rewards and feedback. CET prognosticates that any strategy that facilitates the satisfaction of an athlete's three psychological needs identified in SDT will enhance their intrinsic motivation [6]. The need for competence refers to the aspiration an athlete has for effective interaction with their environment, ultimately leading to perceived competence at the prevention of unsought occurrences and producing desired outcomes [17-19]. The need for autonomy is the athlete's longing to have decision-making capabilities and to be the origin of their behaviour [14,18,19]. Lastly, the need for relatedness refers to the feeling of belongingness within the social environment [1]. In the sporting field, this would be the athlete feeling that their coach and or team-mates respect and care for them. Furthermore, CET proposes that feelings of competence need to be accompanied by a sense of autonomy to enhance an athlete's intrinsic motivation [1].

AUTONOMY SUPPORTIVE COACHING

Intrinsic motivation has been identified as an essential component for athletes to function optimally and because of this many researchers have looked at how a coach can positively and negatively influence an athlete's intrinsic motivation [7-12,20,21]. Much of the existing research sets out to test CET and is therefore centered on the three innate psychological needs. In line with CET, it has been proposed that coaches' behaviours made up of autonomy support and the provision of structure and involvement will impact beneficially on an athlete's need for the three identified psychological needs [1]. An autonomy supportive coach is one that does not advocate the use of pressure and demands. Autonomy supportive coaches prefer instead to offer their athletes a clear rationale for tasks, take the perspective of their athlete, encourage choice within the rules and limits whilst also promoting independent problem-solving opportunities to their athletes [1,22,23]. A great deal of research on the parent-child and teacher-student relationships, endorse autonomy supportive behaviours having a positive effect on intrinsic and self-determined extrinsic motivation. Studies within the sporting domain have also yielded the same conclusions [2,7-12,24,25].

PROVIDING A TRAINING RATIONALE

One such autonomy supportive behaviour that has been shown to benefit intrinsic motivation is when setting the training limits and rules, the coach provides a rationale. Upon offering a

rationale for the training, the underlying reasons for the pursuing of the task become fully understood and meaningful to the athlete [1]. Thereby, helping the athlete to feel that they are the initiator of their behaviour; facilitating a sense of ownership over their actions. Unfortunately no research has been carried out regarding the requirement for providing a rationale within the sporting domain. However, numerous studies in the educational field have supported the beneficial impact on intrinsic motivation presented by the teacher offering a rationale for tasks [3,21,26].

INITIATIVE TAKING OPPORTUNITIES

Providing athletes with the opportunity to take initiative and be self-sufficient is an autonomy supportive behaviour often associated with the improvement of intrinsic motivation [27,28]. The opposite of autonomy supportive behaviour is controlling behaviour. Controlling behaviours see the coach limit their athlete's creative side, by demanding their athletes conform to given instructions and restricting opportunities for independency [1]. Amorose and Anderson-Butcher [29] conducted a study examining the impact of perceived autonomy supportive coaching behaviours on the motivation of high-school and college athletes. Specifically, results indicated that the degree to which athletes perceived their coaches to be autonomy-supportive significantly predicted the athletes' perceived competence, autonomy, and sense of relatedness, supporting SDT. The researchers acknowledged the providing of initiative-taking opportunities as a feature of the autonomy-supportive coaching artillery. Therefore the results of the study support autonomy being an influential factor on an athlete's motivation, provided through initiative taking opportunities. Furthermore, a study with students by Boggiano [28] reported findings of heightened intrinsic motivation in the students that were given the opportunity to have an element of control and make decisions regarding what and how they used their time in the classroom.

CONTROLLING BEHAVIOURS

In addition to the previously mentioned controlling behaviours of independency restrictions and pressure to conform to instructions, there are various other behaviours associated with controlling practices. These behaviours include surveillance, guilt-inducing criticisms, and overt control [1]. CET proposes that surveillance has a detrimental effect on athlete's intrinsic motivation as it shows an extrinsic intent to limit and control the athlete's activities, thus undermining their need for autonomy [30]. However, surveillance is not to be confused with monitoring. Surveillance refers to the vigilant inspection of whether given instructions are being followed, whereas monitoring is the way a coach checks for improvements in their athletes. This proposed trend of surveillance undermining intrinsic motivation was demonstrated in studies regarding students [30,31] and also leisure activities [32], but this relationship is yet to be tested by a study within the sporting field.

Overt control comes in two forms; physical control and psychological control. Similarly to surveillance, the research investigating the effect physical control behaviours such as the threat of physical command and psychological control behaviours such as guilt-inducing criticisms have on intrinsic motivation, have been carried out in non-sporting environments [33-35]. However, the findings in these studies do support the expectancies of CET that these behaviours have a negative impact on intrinsic motivation [33,34]. The study by Deci et al. [35] as an example, reported a negative relationship between psychological control and intrinsic motivation, within the parenting domain. Encouragingly a study on male wrestlers aged 9 to 14 years old reported a trend of wrestlers experiencing low intrinsic motivation, perceiving their coaches to be controlling rather than autonomy-supportive [10]. This study

shows that within the sporting context controlling behaviours should be avoided when trying to enhance an athlete's intrinsic motivation. Nevertheless, experimental studies investigating the relationships that specific controlling behaviours have with intrinsic motivation should be undertaken to gain a more decisive understanding of the subject.

The use of positive feedback is predicted by CET to enhance an athlete's intrinsic motivation, due to the promotion of perceived competence [6]. However, this broad prediction is flawed, as it is important to distinguish how different ways the feedback is administered can affect intrinsic motivation. Positive feedback can be administered with an informational framework whereby the coach will provide their athlete with positive feedback concerning their competence. Conversely, positive feedback can also be administered with a controlling framework that urges the athlete to reproduce the behaviour they are receiving feedback on [1,36]. A typical example of controlling administered positive feedback would be 'that performance was good, but that is how the task should always be performed'. CET predicts that the controlling administered positive feedback will elicit less of a favourable impact on intrinsic motivation than the positive feedback administered informationally [36]. This is because controlling feedback is thought to be interpreted by the athlete as pressure from the coach to perform better [36]. Several studies support this prediction [32,37-39], but there is currently a lack of research in the sporting domain, on the effect of positive feedback on intrinsic motivation.

Although the majority of research supports the proposal that an autonomy supportive style of coaching has the most benefit on an athlete's intrinsic motivation, Western culture in large remains dismissive to the research and upholds the more traditional use of controlling coaching behaviours [1]. On the other hand, even if a coach strongly endorses the use of autonomy supportive coaching behaviours for enhancing their athlete's motivation, their actual behaviours are ultimately governed by the immediate context in which they are coaching. When a coach's own interests are related to the performance of their athlete, they are likely to feel under pressure. Under such conditions, the coach is more prone to taking on the characteristics of a controlling coach [40,41].

OVERVIEW OF RESEARCH FINDINGS

All of the research reviewed lays bare the benefits that can be gained in an athlete's intrinsic motivation by the coach adopting autonomy supportive behavioural techniques [2,7-12,24]. Enhanced intrinsic motivation of an athlete brings with it benefits, including improved perceived competence, positive emotions, a greater need to perform the task [14] and less chance of athlete burnout [42]. Simultaneously, the research also reveals the negative impact that a coach's controlling behavioural techniques may have on an athlete's intrinsic motivation [31,37-39]. Unfortunately, most of the motivational research has been conducted outside of the sporting domain with the majority of the studies being carried out in educational settings or the parent-child relationship. A study by Mallett and Hanrahan [43] qualitatively investigated what it is that motivates elite track and field athletes, but did not investigate the role that the coach played in enhancing or diminishing the athlete's motivation. This study therefore aimed to qualitatively investigate how long distance runners perceive the impact that their coach has on their motivation. In line with CET, this study also aimed to distinguish whether the methods used by the long distance runners' coaches correlate with the existing research on preferable behaviours for enhancing an athlete's motivation. This study intended to ask, what impact it is that a coach has on long distance runners' motivation? Does this impact differ between training and competition conditions? And are the motivational enhancing behaviours utilised by the coach consistent with the recommendations of the current SDT motivation research?

METHODS

PARTICIPANTS

The participants for the study were identified as international athletes based on their previous achievement of representing their national team at their specific discipline within long distance running. The reason for this identification being that, a coach's impact on a recreational runner's motivation is likely to differ from an athlete pursuing a potential career in the sport [43]. Six athletes that met this criterion were contacted regarding voluntary participation for the study. The participants were aged between 18 and 22 years (M = 20.7, SD = 1.51). Prior to participation and subsequent to ethical approval being gained for the study to be undertaken, written informed consent was obtained and confidentiality assured throughout.

INTERVIEW GUIDE

Data was collected using a semi-structured interview approach with all six participants. As the sought after information was reliant on the participants being able to discuss their personal experiences and was highly subjective, a questionnaire was concluded to be too restrictive and inappropriate to gather the required information [44]. This semi-structured approach allowed the opportunity to explore some appropriate issues raised by the participants, whilst providing a consistent framework upheld with all of the participants [45]. With the help of a sports psychologist who has interviewing experience as both a consultant and researcher within this area, an interview schedule was developed. The interview questions were based around the schedule devised by Mallet and Hanrahan [43], but included more questions regarding the coach's impact. The schedule ensured that the interview progressed in an appropriate manner by grouping linked questions together rather than going back and forth between topics. The opening questions in the interview schedule were planned to be 'ice breakers', asking the participant about their initial involvement in long distance running such as "how did you first get involved in long distance running". It was hoped that these 'ice breaker' questions would build a rapport between the interviewer and participant allowing for a more productive interview process. The subsequent questions were based on Cognitive Evaluation Theory [6], the Hierarchical Model of Motivation [15] and were made specific for the coach's role in motivation for training and competitive situations, enabling comparisons to be made. Questions based directly on CET included "Does your coach allow for the opportunity of initiative taking?" and "Does your coach explain the reasons behind training to you?". The interview schedule was piloted before the study. The pilot interview was conducted on a competitive long-distance runner. The purpose of the pilot interview was to ensure the terminology was appropriate for this population sample and that the schedule provided enough opportunities to gather the required richness of data. As a result of the pilot interview questions such as "Does your coach ever attempt to motivate you prior to a race?" were added to the schedule to specifically address competition motivation.

PROCEDURES

Prior to the interviews, the participants had the purpose of the interview explained to them via the provision of an information sheet that also explained the procedure of the study. All of the interviews were conducted face to face in an environment comfortable for the participant such as their home. Each participant was interviewed once, with each interview lasting between 30-60minutes. The interviews were recorded and then transcribed verbatim. The potential risk of sport-specific terms being misinterpreted was not problematic as the researcher had experience in long distance running.

DATA ANALYSIS

The transcribed raw data was read through a number of times to familiarise and ensure full understanding of the data collected. Following this a data reduction process began following procedures previously outlined by Gratton and Jones [45] identifying the raw data themes for each interview individually. The next step was identifying the higher-order themes and general dimensions. All of the themes were then formatted into a forthright observable table similar to the one used by Jackson and Baker [46]. Succeeding the data reduction process came the most important part of the analysis, comparing and connecting the themes from the interviews of all the participants. The comparison across all of the participants allowed for the recognition of trends. Along with a pilot study, secondary analysis was used to optimise the reliability of data collection and analysis. The research supervisor who has experience of qualitative research carried out secondary analysis of the study. Roles carried out by the secondary analyst included checking proposed themes and dimensions. When discrepancies were present with the first analyst's classifications, a discussion and negotiation process continued until both analysts had agreed on the titles and organisation of the themes [47].

RESULTS

Data reflecting the coach's impact on long distance runners' training and competition motivation collected via interviews were organised inductively into four prominent general dimensions: athlete's uninfluenced training motivation, athlete's uninfluenced competition motivation, coaching behaviours impact on athlete's training motivation, and coaching behaviours impact on competition motivation. The dimensions arose solely from the data, as an inductive approach was taken. Athlete's uninfluenced training motivation represents the autonomous motivation of the athlete for training without the influence of a coach. Athlete's uninfluenced competition motivation represents the autonomous motivation of the athlete without the influence of a coach for competition. Conversely, the remaining two general dimensions; coaching behaviours impact on athlete's training motivation and coaching behaviours impact on competition motivation represent the techniques that are used by coaches to enhance their athlete's motivation as well as the athletes' experiential effect of the techniques on training and competition motivation respectively.

ATHLETES' UNINFLUENCED TRAINING MOTIVATION

The resultant feeling of fulfillment following training was an explanation for the enjoyment of training for one of the participants (see Table 1.): "*when I've finished a session and I know that it's been a tough ride through the session...and I'm happy to have finished the session and feel good about myself*". The enjoyment of training while feeling good about themselves was an intrinsic theme shared among the participants. However, when things are not going as planned for these athletes a lack of training motivation is often established: "*I do lack motivation for training, like for example if I was injured or getting ill and that sort of thing and I'm not running*". This lack of motivation for training when injured was a theme shared among many of the participants. External factors such as weather and time were also recognised by the majority of the participants as a hindrance to training motivation: "*when I look outside and its horrible weather, I just think I don't really want to go training*". The outcome of all the interviews showed that all of the participants often find themselves lacking training motivation but do ultimately enjoy the sessions, demonstrating intrinsic motives for training in their sport.

Table 1. The Raw Data Themes and Higher Order Themes of the General Dimensions Athletes' Uninfluenced Training Motivation and Athletes' Uninfluenced Competition Motivation

Raw Data Themes	Lower Order Themes	Higher Order Themes	General Dimensions
Likes most aspects of training when running well!	Situational determinants	Training enjoyment	Athletes' uninfluenced training motivation
Enjoys training when running well			
Enjoys feeling good in training	Intrinsically motivated for training		
Training is a good release			
Training motivation has increased with age			
Enjoys training			
Lacks motivation for cross training	Lack of intrinsic motivation for training	Low training motivation	
Doesn't look forward to training sessions			
Dislikes having to train when tired			
Lacks motivation for training			
Bad weather sometimes results in low training motivation	Situational and environmental determinants		
Dislikes having to wake up early for training			
Lacks training motivation when things aren't going well			
Struggle to stay motivated during times of injury			
More motivated for competition than training	Intrinsically motivated for competition	Competition enjoyment	Athletes' uninfluenced competition motivation
Never lacks motivation for competition			
Nothing they dislike about competing			
Enjoys competition to prove people wrong	Extrinsic motivations for competition		
Enjoys competition because of success			
Dislikes the pressure of competition	Competitive displeasure	Low competition motivation	
Dislikes competing when not fully fit			

ATHLETE'S UNINFLUENCED COMPETITION MOTIVATION

Incidences of participants reporting low competition motivation were rare (see Table 1), only two of the participants revealed any disdain for competition: "*I do (lack motivation for training)...it's down to not being on the competitive scene for a long enough time either through injury or just through experience*". Both of the participants denoted injuries or lack of competitive fitness as the cause for the lack of competition motivation. However, all of the other participants spoke of competition affectionately: "*no matter what size of competition I never lack motivation to actually try my hardest because every race at the end of the day is a race and there is my reputation*". The notion of never lacking competition motivation was consistent with the other participants, but the reasons for this motivation varied, in this example the participant was motivated by maintaining their reputation while others were simply motivated to succeed or to prove a point: "*when people write me off, that's when in competitions I probably put the extra effort in*". Unlike athletes' uninfluenced training motivation where most participants discussed an intrinsic motivation for training, extrinsic motivation arose as positively affecting an athletes' motivation for competition.

Table 2. The Raw Data Themes and Higher Order Themes of the General Dimension: Coaching Behaviours Impact on Athletes' Training Motivation

Raw Data Themes	**Higher Order Themes**	**General Dimensions**
Coach sets the session and encourages	Coach's role during training	Coaching behaviours impact on athletes' training motivation
Coach sets the session and monitors		
Coach doesn't supervise all aspects of training		
Coach has many roles during training including motivating		
During training the coach closely monitors the athlete's injuriousness		
Coach allows for initiative taking	Techniques used by coach to enhance training motivation	
Coach and athlete mutually agree on goals during pre-season		
Coach encouraged athlete to take more interest in the sport to increase motivation		
Coach reminds athlete of the benefits when training motivation is lacking		
Coach explains the reasons behind training		
Coach doesn't allow for initiative taking opportunities		
Coach enhances training motivation via re-assurance		
Constant supervision would lower training motivation	Coaching behaviours that have a negative or neutral impact on athletes' training motivation	
Training would be more difficult without a coach		
Initiative taking opportunities has no impact on training motivation		
Lack of explanation for training has no impact on training motivation		
De-motivation would occur if coach was to put competitive pressure during training		
Reassurance attempts don't have intended impact unless training well		
Too much information from coach can lead to over thinking		

Table 3. The Raw Data Themes and Higher Order Themes of The General Dimension: Coaching Behaviours Impact on Athletes' Competition Motivation

Raw Data Themes	**Higher Order Themes**	**General Dimensions**
Athlete and coach have a tactical meeting pre-race	The coach's role during competition	Coaching behaviours impact on athletes' competition motivation
Coach motivates pre-race		
Coach doesn't attempt to motivate pre-race		
During competition coach talks tactics, encourages and provides feedback		
Coach takes a background role during competition		
Coach tries to motivate continued participation post-bad race	Techniques used by coach to enhance competition motivation	
Coach uses reassurance to motivate the athlete for competition		
Coach motivates pre-race		
Coach gives support during competition		
Coach encourages during competition		
Coach's reassurance has a positive impact on competition motivation	Coaching behaviours that have a positive impact on competition motivation	
Motivated for success by justifying coach's hard work		
Coach wouldn't be able to motivate the athlete for competition as well as the athlete could themselves	Coach's negative or neutral impact on athletes' competition motivation	
Athlete considers the coach to be more important for training motivation than competition motivation		
Motivation attempts don't work		
Athlete doesn't need coach to motivate for competition		
Athlete feels it is important to be able to motivate themselves for competition		

COACHING BEHAVIOURS IMPACT ON ATHLETES' TRAINING MOTIVATION

The participants did not all share the same coach, so the role of the coach during training was slightly different for each participant. For the majority of the participants the coach encourages, monitors and sets the session (see Table 2.): "*they set the session, give encouragement pretty much*". A common theme with all of the participants was that the coach did not supervise all aspects of training: "*he's not there for steady runs... if someone is constantly nagging at you 'have you gone on your run, are you doing your run?' I guess that could lead to a kind of de-motivation*". The participants saw the occasional lack of supervision as necessary and constant supervision would have a negative effect on their training motivation. Other coaching behaviours discussed as having a positive impact on athletes' training motivation were the allowance for athlete initiative taking, re-assurance and the explanation of the benefits of training: "*before a track session he will say 'you're doing this because you're doing a 5k race in a few weeks and you need to develop this'... it helps because you know what you're aiming for in a session rather than just doing the session because he's set it*". Not all of the participants shared the same experiences of these coaching behaviours, some participants experienced a negative or neutral impact of these behaviours on their training motivation: "*he's the coach, so what he says goes really...I listen to what he*

says and I believe in his judgement, I trust what he says...I've been through phases where I think I've been told too much about training so when it's not quite going right you over think things". One of the participants reasoned that a lack of initiative-taking opportunities does not affect their training motivation because of their undying trust in their coach's technique and therefore, they do not have a need to take initiative. Another of the participants revealed that they have felt as though the explanation behind the training they are set has negatively affected them by causing them to 'over think'. Although these behaviours have mixed effects on athlete's training motivation, the participants all agreed that a competitive promotion during training and constant supervision of training by a coach would have a negative impact on their training motivation: "*I don't think I would like it...it would feel like I was being watched all the time, like not pressure to perform but if you wanted to run slower one day and he was always there you would feel like you had to perform better*". Conversely it was seen that the occasional lack of supervision increases an athlete's training motivation: "*I think it helps that he's not there because it gives you that bit of time to yourself*".

COACHING BEHAVIOURS IMPACT ON ATHLETES' COMPETITION MOTIVATION

Coaching behaviours identified during competition included the broad behaviours likely to be replicated by fans and family such as support and encouragement (see Table 3.): "*out on the track or course running round he encourages you*". Other behaviour recognised by the athletes were reassurance of ability and training benefits: "*he tells me that I can obviously do well in these races and stuff and that I am better than I think I am*", "*it is a case of him reiterating the sessions that you are doing...training you've done and that the outcome is going to be in the performance that you are about to compete in*". In this example, the coach reassures the athlete that the training they have completed has been guided towards good performance in competition. It is hoped that this will motivate the athlete for competition by justifying the hard work they have put in. The reassurance technique along with the athlete wanting to make their coach's hard work validated were identified as having a positive impact on athletes' competition motivation: "*all his hard work has gone to good use and you can see all that hard work*". However, incidences of athletes' reporting their coach having a positive impact on their competition motivation were rare: "*I know my body better than my coach...if he tells me I can really do well in this race and I feel knackered, him saying that I am going to do really well when I feel knackered doesn't really motivate me*". The participants were largely in agreement that it was important for them to be able to motivate themselves for competition: "*I know myself how important winning and stuff is so I think that only I am able to make it personal for me and increase my motivation. If my coach tried to motivate...I would feel like I was doing it for someone else and this would de-motivate me I think*".

All participants while discussing the coach's role and effect on motivation agreed that the input of a coach is required to a greater degree for enhancing training motivation as opposed to competition motivation. The majority of participants reported a greater affinity to competition over training and subsequently reported high uninfluenced competition motivation, whereas uninfluenced training motivation was found to frequently be lacking in the participants. Various techniques used by coaches to enhance athletes' motivation were identified. The success rate for the techniques having their intended effect varied between the participants, with an assortment of positive, neutral and negative effects on motivation reported.

DISCUSSION

According to Cognitive Evaluation Theory (CET), behaviours by a coach that facilitate an athlete's three innate psychological needs will increase their intrinsic motivation [6]. However, current motivational research has for the most part been carried out in non-sporting contexts. Therefore, the aim of this study was to qualitatively investigate how long distance runners perceive the impact that their coach has on their motivation. The study set out to answer the following research questions: What impact a coach has on long distance runners' motivation? Does the impact vary between training and competition conditions? Are the motivational enhancing behaviours exhibited by the coach in line with the recommendations of the current SDT motivation research? The results of the study revealed that the coaching behaviours for enhancing motivation were typically consistent with the recommendations of current research that autonomy supportive coaching behaviours are preferable for enhancing motivation. Additionally, the coach does impact long distance runners' motivation and this impact varies in requisiteness and effect between training and competition conditions. More specifically, training motivation is more likely to be intrinsically motivated, while competition motivation is more likely to arise from external contingencies.

In line with current research [1-4], this study yielded results that autonomy supportive behaviours applied by a coach will have a positive impact on an athlete's motivation. The autonomy supportive behaviour of the coach providing their athletes with a rationale for training was found to have an assorted effect on training motivation between the athletes. In agreement with the studies by Newby [26], Cordova and Lepper [21] and Reeve et al. [3], the offering of a rationale for training had a beneficial effect on some of the athletes' motivation. The believed reason for the motivational increase occurring is a result of the increased self-relevance of the training being set, along with the core reasons for training being performed becoming understood and consequential to the athlete [1,3,26]. However, some of the athletes perceived their motivation to have either been unaffected or negatively affected by the coach either providing a rationale, or the coach exhibiting the controlling behaviour of not providing a rationale. This goes against the findings of available research [2,3,26]. A reason for one of the athlete's motivation being unaffected by their coach not providing a rationale for training, was because they trusted their coach's training prescription without it needing to be explained to them. This trust was seemingly developed over a prolonged period of time. These findings suggest that a coach providing an athlete with a rationale for training is reliant upon the past success of the training and the trust that goes alongside it. Early on in the development of the coach-athlete relationship, it is conceivable that the coach offering a rationale for training would provide a required increase in athlete motivation. However, a successful and enjoyable period under the coach's guidance may lead to the athlete fully trusting the coach's reasoning for training. This development of trust, could therefore lead to the athlete no longer requiring a rationale to approach their training with optimum motivation.

Similar to the offering of a rationale, the autonomy supportive coaching behaviour of allowing for athlete initiative-taking was met with mixed reactions on the motivation of the athletes. The research into this area is currently lacking. Nonetheless, a relationship is apparent between this study and Boggiano's [28] findings that students reported improved motivation, by way of being granted initiative-taking opportunities. The majority of the participants in this study reported a positive impact on motivation by being allowed to take initiative and have an input on their training. The participant that did not report increased motivation from initiative-taking opportunities was not negatively affected. Although this finding is not consistent with the key tenets of SDT, it demonstrates the individual

differences in general causality orientations [48]. Within SDT, causality orientations are not considered unequivocally orthogonal nor are they considered directly deterministic of the types of motivation likely experienced by an individual in a given context [14, 48]. Causality orientations could be viewed as an interpersonal bias that moderates the effects of environmental factors that support or impede intrinsic motivation [14, 48]. It can therefore be deduced from the results that athlete initiative-taking opportunities can be a tool used to enhance the motivation of the athlete. The reason for this positive effect on motivation is most likely related to one of the three innate psychological needs identified by CET [6]; the specific innate psychological need targeted by initiative taking opportunities is autonomy. Deci and Ryan [49] explain that autonomy regards the healthy human functioning of experiencing freedom and integration. By being allowed to take initiative with their training, the athlete experiences freedom and comparable to providing a rationale, the training's self-relevance and personal significance increases. Based on the results of this study, allowing an athlete to take initiative can be used as an effective device by a coach when a motivation increase is required. Through adopting a qualitative approach, it has extended previous quantitative findings, by providing a rich understanding of specific techniques adopted by coaches and the subsequent impact they have on athletes' motivation. Furthermore, this allows a scientific development from theory to research to practice, allowing coaches to adopt the techniques within their applied field.

A coaching behaviour that unexpectedly arose consistently between the participants was the use of reassurance to enhance motivation. Previous research has more regularly focused on the effect of reassurance on self-efficacy as opposed to motivation [4]. However, Bandura and Schunk [50] propose that upon experiencing a positive episode, self-efficacy and motivation increase. Conversely, upon experiencing a negative episode self-efficacy and motivation decrease. This suggests a concurrent relationship between self-efficacy and motivation. Furthermore Boyer et al. [51] reported that reassurance is effective for increasing self-efficacy and therefore motivation of individuals with low self-efficacy and motivation. Conversely, it was also found that reassurance may be detrimental to self-efficacy and therefore motivation if used with athletes that currently have high self-efficacy. The findings of these studies reveal that the use of reassurance as a motivational enhancer needs to be used delicately at the right moments. Misuse of the technique has the potential to contradict the intention of use by inhibiting motivation, giving coaches and national governing bodies a dilemma regarding education for the correct use of the technique. Another proposed explanation for reassurance positively impacting on athletes' motivation reverts back to CET and the innate psychological need of competence [36]. By reassuring an athlete of their ability or of the quality of their training, an athlete's competence is being facilitated and in tandem with this, an increase in motivation should theoretically occur [1,49]. Furthermore SDT [5] suggests that reassurance should be offered in an autonomy-supportive manner to reap the intended positive effects on intrinsic motivation towards the activity or behaviour. The results of this study reveal that reassurance is potentially being misused by one of the participant's coaches, as they report being unaffected by their reassurance, as they believe the reassurance to be unspecific to the situation. On the other hand, the other participants that claimed to have been subjected to reassurance by their coach reported a positive impact on their motivation, specifically more often when their motivation was currently low. Hence the findings of this study were in agreement with previous research.

As the majority of research supports autonomy supportive coaching behaviours as beneficial to motivation [7-12,20,21] it is fitting that controlling behaviours are largely

undisputed as having a detrimental effect on an individual's motivation [30-34]. One such controlling behaviour identified in this study was that of supervision, referred to by other research as surveillance. The general consensus among the participants was that an occasional lack of supervision from their coach was necessary for keeping motivation high. Furthermore, it was apparent that constant supervision would lower the motivation of the athletes. This finding is in agreement with the research of studies among leisure activities [32] and students [30,31]. As previously mentioned, autonomy is one of the innate psychological needs requiring stimulation to enhance motivation [49]. It is proposed that supervision disparages the athlete's autonomy need as it demonstrates intent of an extrinsic nature to limit and control activities engaged in by the athlete [30], the restriction of autonomy then leads to the lowering of motivation. These findings give coaches an interesting decision to make, when will their presence during training be most beneficial for their athlete's autonomous motivation? It seems clear from the interviews that the athletes consider the presence of their coach to be more necessary for the specific training sessions as opposed to their basic steady runs.

Another finding of this study addressing one of the research questions, was that the impact of the coach's motivation attempts does differ between training and competition conditions. The research in this area is lacking, but by making assumptions from other studies an explanation can be cautiously assembled. The consistent finding of this study was that the participants' uninfluenced training motivation was often low and coaching behaviours had a positive impact on their training motivation. Alternatively, uninfluenced competition motivation was found to be high and coaching behaviours rarely had a positive impact on their competition motivation. Referring back to the findings of Boyer et al. [51] reassurance impacted positively on the motivation of those individuals with low motivation and self-efficacy, whereas individuals with high motivation and self-efficacy had the opposite reaction to reassurance. In relation to this study, comparisons can be made and an explanation for the effects of coaching behaviours impact on motivation differing between the training and competition conditions provided. The participants reporting low training motivation, but being positively affected by coaching behaviours intended for enhancing training motivation is in line with the findings of Boyer et al. [51]. In addition, the participants mostly reported high uninfluenced competition motivation, believing their coach's behaviours as ineffectual or incurring a negative effect on their competition motivation. This study's results suggest that when an athlete is already high in motivation, then the coach should take a back seat and allow them to retain their personal motivation. It would also appear that the coach should make more use of themselves for motivating their athletes for training as opposed to competition.

Despite the majority of this study's findings being supported by the other available research [1-3,27,28,30,52], the subjective nature of the interviews in this study meant that the motivation and experiences of the participants were how they perceived them, rather than accurate real-time accounts. All of the participants were in different phases of their current yearly cycle, one participant was injured, while another was out of competition. The participants not being in the same phase, means they may have been reflecting on the same experiences with a different perspective. Experiences may not be as fresh in the mind of the participants that have not competed or trained in a substantial amount of time. Due to the specific design of this study for analysing long distance runner's motivation, the findings are not generalisable to athletes beyond this specific sample.

CONCLUSION

Regardless of this study's limitations, many of the findings can offer guidelines to coaches wanting to enhance the motivation of their athletes. Not only were the most appropriate and inappropriate coaching behaviours for enhancing motivation identified, but also the most beneficial time for the execution of these behaviours discussed. A coach that has identified one of their athletes as frequently lacking in motivation, may be able to reflect on their own behaviours and recognise if they are in fact part of the problem. It is clear from this study that coaches can have a significant impact on their athlete's motivation. Education of coaches in the correct use of motivational behaviours may be necessary and the findings of this study could be useful as a guideline. Bandura and Schunk [50] propose that upon experiencing a positive episode such as winning a race or attaining the set goals for a training session, self-efficacy and motivation increase. As the participants of this study were of an international standard, they are likely to have had positive competition experiences and this is likely to be why they reported high competition motivation.

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